

REMARKS

Applicant respectfully requests reconsideration and allowance of the subject application in view of the foregoing amendments and the following remarks.

Claims 1-40 are pending in the application, with claims 1, 10, 20, 28 and 35 being independent claims. Claims 1, 2, 3, 8, 9, 10, 20, 28, 33, 35, and 37 are amended herein. Support for the claim amendments can be found in the original specification at least at the following paragraphs: [0008], and [0063]-[0066]. No new matter has been added.

CLAIM OBJECTIONS

The Office objects to claims 2, 3, 8, 9, 33, 35, and 37 based on informalities regarding language used that suggests or makes optional but does not require steps to be performed or does not limit a claim to a particular structure, or does not limit the scope of a claim or claim limitation. This objection is respectfully traversed. However, without conceding the propriety of the objection, and in the interest of expediting allowance of the application, claims 2, 3, 8, 9, 33, 35, and 37 have been amended for clarification. Claims 2, 3, 8, 9, 33, 35, and 37 are therefore believed to be in condition for allowance.

§102 REJECTIONS

Claims 1-4, 6, 7, 9, 20-23, 25, and 27 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application No. 2005/0047340 to Babiarz et al. (hereinafter “Babiarz”). Applicant respectfully traverses the rejection.

Nevertheless, without conceding the propriety of the rejection, and in the interest of expediting allowance of the application, independent claims 1 and 20 have been amended for clarification and are, therefore, believed to be allowable.

Independent claim 1, as presently amended, recites in part:

wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data;

...
wherein scheduling includes stipulating a **particular media portion** to be sent to a designated destination client.

Applicant respectfully submits that no such elements are disclosed by Babiarz.

Babiarz Fails to Disclose Threshold Priority Calculated from Deadline or Early Media Data...or Scheduling Includes Stipulating a Particular Media Portion.

Babiarz is directed to a “technique for end-to-end admission control of real-time packet flows.” (Abstract). More specifically, Babiarz marks unique bits in probe packets, indicating the flow rate of the packets. This information is used by an entity that controls the network to allow or deny additional packets to be transmitted by the network. (Babiarz, paragraphs 7-10). For example, the system in Babiarz monitors the flow rate of packet travel between points in a network by occasionally sending probe packets over the network. Based on the flow rate observed, unique bits in the probe packets are marked by the system, indicating the flow rate relative to a predetermined limit. These bits are read at admission control points, and depending on the values of the marked bits, additional information packets are either allowed or denied access to the network at that instant. (Babiarz, paragraphs 14-15 and FIG. 1).

The Office cites Babiarz as teaching the features of independent claim 1. Babiarz describes a method for controlling the flow of information over a network, however, Babiarz fails to disclose “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner** **early** media data or **relatively later** **early** media data; [and] wherein scheduling includes stipulating a **particular media portion** to be sent to a designated destination client” as

presently recited by independent claim 1. Accordingly, independent claim 1 is not anticipated by Babiarz.

Dependent claims 2-4, 6, 7, and 9 depend from independent claim 1 and are, therefore, allowable by virtue of this dependency as well as for additional features that each recites.

For example, the Office cites paragraph 48 on page 4 of Babiarz as teaching the features of dependent claim 4. Here, Babiarz teaches prioritizing calls on a network by type, such that important calls like emergency calls are allowed on the network before less important calls when the total voice traffic approaches or exceeds a predetermined limit.

In contrast, Babiarz fails to disclose priorities that are “dependent at least in part on whether the stipulated media data comprises **deadline** media data versus **early** media data, with deadline media data having a relatively higher priority ” as recited in dependent claim 4. Thus, Babiarz fails to disclose at least these particular additional features of the dependent claims.

Independent claim 20, as currently presented, recites in part:

wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or relatively later early media data.

The Office cites paragraphs 47-48 of Babiarz as allegedly teaching the features of this claim. As discussed above, Babiarz describes a method for using prioritization to control the flow of information over a network, however, Babiarz fails to disclose “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data” as recited in independent claim 20. Nothing in Babiarz discloses these features as recited in claim 20; accordingly, independent claim 20 is not anticipated by Babiarz.

Dependent claims 21-23, 25 and 27 depend from independent claim 20. These dependent claims are allowable by virtue of their dependency on claim 20, as well as for additional features recited by them.

§103 REJECTIONS

Claim 5 stands rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of U.S. Patent No. 6,763,520 to Seeds (hereinafter “Seeds”).
Applicant respectfully traverses the rejection.

Dependent claim 5 depends from independent claim 1, and includes all of the features of the independent base claim. Dependent claim 5 is allowable by virtue of this dependency as well as for additional features that it recites. As

discussed above, Babiarz fails to disclose or suggest the features of independent claim 1. Seeds fails to remedy the deficiencies in Babiarz.

Seeds is directed to “controlling of multi-processing servers, and more particularly, to fair assignment of processing resources to queued requests in multi-processing servers.” (Col. 1, lines 1-5). Seeds discusses a system of assigning processing resources to requests that exceed the system’s capacity for concurrent processing, in a multiple processing environment. (Col. 1, lines 50-54).

However, Seeds fails to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises deadline media data versus relatively sooner early media data or relatively later early media data [and] wherein scheduling includes stipulating a particular media portion to be sent to a designated destination client,” as presently recited in independent claim 1. Therefore, Seeds fails to remedy the deficiencies in Babiarz with regard to independent claim 1.

The Office admits that Babiarz does not disclose that the priority is dependent on whether the media data is associated with fewer versus many senders with association with fewer senders having a relatively higher priority as recited in dependent claim 5. The Office states that Seeds teaches these features at col. 5, lines 30-40.

Seeds describes dispatching requests for processing resources depending on attributes that describe the service type. Seeds lists various attributes considered, including total number of queued items, number of idle server instances, and CPU utilization. However, Seeds fails to remedy the noted deficiencies in Babiarz with respect to claim 5. For example, Seeds fails to disclose “the unique priority is dependent at least in part on whether the stipulated media data is associated with fewer capable senders versus many capable senders, with association with fewer capable senders having a relatively higher priority,” as recited in dependent claim 5.

Thus, Babiarz and Seeds, taken alone or in combination, fail to disclose, teach, or suggest at least these features of dependent claim 5. Dependent claim 5 is allowable for at least these reasons.

Claims 8 and 24 stand rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of the paper by Gonzalez et al. titled “Load Sharing Based on Popularity in Distributed Video on Demand Systems” (hereinafter “Gonzalez”). Applicant respectfully traverses the rejection.

Dependent claims 8 and 24 depend from independent claims 1 and 20 respectively, and include all of the features of the independent base claims. Dependent claims 8 and 24 are allowable by virtue of this dependency as well as for additional features that each recites. As discussed above, Babiarz fails to

disclose or suggest the features of independent claims 1 and 20. Gonzalez fails to remedy the deficiencies in Babiarz.

Gonzalez is directed to “a distributed video on demand system in which the videos are replicated according to [their] popularity.” (Abstract). Gonzalez discusses a system for distributing video on demand media data while reducing the media storage capacity required that involves not replicating all of the content in all of the servers. (Section 1, Introduction).

However, Gonzalez fails to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises deadline media data versus relatively sooner early media data or relatively later early media data,” as presently recited in independent claims 1 and 20. Therefore, Gonzalez fails to remedy the deficiencies in Babiarz with regard to independent claims 1 and 20.

The Office admits that Babiarz does not disclose that if the send request is not selected, it is determined if the priority of the send request is more important than a threshold priority from another sender and, if so, transmitting a send request to the sender, as recited in dependent claims 8 and 24. The Office states that Gonzalez teaches these features at page 6, Section 3, Load Sharing in Distributed VOD Systems.

Gonzalez describes a proposed load sharing algorithm that includes two queues: a local queue, and a remote queue. Send requests are serviced first from the local queue, and requests from the remote queue are not serviced unless the

local queue is empty. (Section 3). The system of Gonzalez uses priorities to control distribution of media data, based on the number of requests in the local queue. However, Gonzalez fails to remedy the noted deficiencies in Babiarz with respect to claims 8 and 24. For example, Gonzalez fails to disclose “determining if the **priority** of the send request is more important than at least one other threshold priority received from at least one other sender that is capable of implementing the send request; and if so, transmitting the send request to the at least one other sender that is capable of implementing the send request,” where “the threshold **priority** is calculated from a variety of factors including whether media data requested in the send request comprises **deadline media data** versus **relatively sooner early media data or relatively later early media data**,” as recited by incorporation in dependent claims 8 and 24.

Thus, Babiarz and Gonzalez, taken alone or in combination, fail to disclose, teach, or suggest at least these features of dependent claims 8 and 24. Dependent claims 8 and 24 are allowable for at least these reasons.

Claims 10, 11, 14-16, 18 and 19 stand rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of U.S. Patent No. 6,112,101 to Bhatia et al. (hereinafter “Bhatia”). Applicant respectfully traverses the rejection.

Nevertheless, without conceding the propriety of the rejection, and in the interest of expediting allowance of the application, independent claim 10 has been amended for clarification and is, therefore, believed to be allowable.

Independent claim 10, as presently amended, recites in part:

wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data; and
broadcasting the threshold priority.

The Office cites pages 4 and 5 of Babiarz as teaching the features of this independent claim. As discussed above, Babiarz describes a method for using prioritization to control the flow of information over a network, however, Babiarz fails to disclose “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data” as recited in independent claim 10. Nothing in Babiarz discloses these features as recited in claim 10.

Further, the Office admits that Babiarz fails to disclose broadcasting the threshold priority, as recited by independent claim 10. Bhatia fails to remedy the deficiencies in Babiarz with respect to this claim. The Office cites column 3, lines 46-53 of Bhatia as allegedly teaching the features of this claim.

Bhatia is directed to “a ‘load based priority’ telecommunications system and method which provides efficient use of Traffic Channels (TCHs).” (Abstract) A subscriber may choose his or her priority level of service at the time of subscription, paying a lower rate for a lower priority or a higher rate for higher priority if desired. (Abstract). Bhatia discusses a system that monitors the traffic

loads on the TCHs, and either allows or denies call traffic to lower priority subscribers in favor of higher priority subscribers, depending on the traffic load on the TCH at the instant. (Abstract).

Bhatia discusses broadcasting a current priority level in a cell network, allowing only mobile subscribers with the current priority or higher priorities to access the cellular network, where the subscribers have selected their individual priorities. (col. 3, lines 46-53). However, Bhatia fails to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data,” as presently recited in independent claim 10. Therefore, Bhatia fails to remedy the deficiencies in Babiarz with regard to independent claim 10. Thus, Babiarz and Bhatia, taken alone or in combination, fail to disclose, teach, or suggest at least these features of independent claim 10.

Dependent Claims 11, 14-16, 18 and 19 depend from independent claim 10, and include all of the features of the independent base claim. Dependent claims 11, 14-16, 18 and 19 are allowable by virtue of this dependency as well as for additional features that each recites.

Claims 12, 13 and 17 stand rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of Bhatia et al. and in further view of U.S. Patent No. 7,155,533 to Klotsche, (hereinafter “Klotsche”). Applicant respectfully traverses the rejection.

Dependent claims 12, 13 and 17 depend from independent claim 10, and include all of the features of the independent base claim. Dependent claims 12, 13, and 17 are allowable by virtue of this dependency as well as for additional features that each recites. As discussed above, Babiarz and Bhatia, taken alone or in combination, fail to disclose, teach, or suggest the features of independent claim 10. Klotsche fails to remedy the deficiencies in Babiarz and Bhatia.

Klotsche is directed to “a procedure for the transmission of data in variable time slots between controllers of a packet-oriented data network and a user of the data network.” (Abstract). Klotsche discusses a system for monitoring each data transmission flow rate separately. (Abstract).

However, Klotsche fails to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises deadline media data versus relatively sooner early media data or relatively later early media data,” as presently recited in independent claim 10. Therefore, Klotsche fails to remedy the deficiencies in Babiarz and Bhatia with regard to independent claim 10.

The Office admits that Babiarz and Bhatia do not disclose ranking the send requests according to respective priorities, as recited in dependent claims 12, 13,

and 17. The Office states that Klotsche teaches these features at col. 10, lines 17-27.

Klotsche describes a process for allocating time slots based on the current wait time or policy level of the data flow. (Col. 10, lines 17-27). A strategy is described whereby policy levels are ranked in terms of wait times, with the shortest wait times receiving the highest ranking. Each request is then processed in order of ranking, with the lower ranked requests waiting for the higher ranked requests to be fully processed. (Col. 10, lines 17-27). The system of Klotsche uses priorities to control distribution of data, ranking requests for distribution based on relative wait times. However, Klotsche fails to remedy the noted deficiencies in Babiarz with respect to claims 12, 13, and 17. For example, Klotsche fails to disclose "wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline media data** versus **relatively sooner early media data or relatively later early media data**," as recited by incorporation in dependent claims 12, 13, and 17.

Thus, Babiarz, Bhatia and Klotsche, taken alone or in combination, fail to disclose, teach, or suggest at least these features of dependent claims 12, 13, and 17. Dependent claims 12, 13, and 17 are allowable for at least these reasons.

Claims 26, 28-32, 35-38, and 40 stand rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of Klotsche. Applicant respectfully traverses the rejection.

Nevertheless, without conceding the propriety of the rejection, and in the interest of expediting allowance of the application, independent claims 28 and 35 have been amended for clarification and are, therefore, believed to be allowable.

Independent claim 28, as presently amended, recites in part:

ascertaining a threshold priority at the sender based on a ranking of send requests and responsive to a send bandwidth of the sender, the ranking of send requests including the send request from the scheduler,

wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data.

As discussed above, Babiarz describes a method for using prioritization to control the flow of information over a network, however, Babiarz fails to disclose “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus **relatively sooner early** media data or **relatively later early** media data” as recited in independent claim 28. Nothing in Babiarz discloses these features as recited in claim 28.

Further, the Office admits that Babiarz fails to disclose ranking the send requests according to respective priorities, as recited by independent claim 28. As discussed above, Klotsche fails to remedy the deficiencies in Babiarz with respect to this claim.

Klotsche describes a process for allocating time slots based on the current wait time or policy level of the data flow. (Col. 10, lines 17-27). A strategy is described whereby policy levels are ranked in terms of wait times, with the shortest wait times receiving the highest ranking. Each request is then processed in order of ranking, with the lower ranked requests waiting for the higher ranked requests to be fully processed. (Col. 10, lines 17-27). The system of Klotsche uses priorities to control distribution of data, ranking requests for distribution based on relative wait times. However, Klotsche fails to remedy the noted deficiencies in Babiarz with respect to independent claim 28. For example, Klotsche fails to disclose "wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline media data** versus **relatively sooner early media data** or **relatively later early media data**," as recited in independent claim 28.

Thus, Babiarz, and Klotsche, taken alone or in combination, fail to disclose, teach, or suggest at least these features of independent claim 28. Independent claim 28 is allowable for at least these reasons.

Independent claim 35, as presently amended, recites in part:

ascertain respective threshold priorities calculated in part based on whether media data requested in the send requests comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data, each time slot based on respective prioritized rankings of the respective send requests received at each sender from the schedulers and responsive to respective send bandwidths of each respective sender.

As discussed above, Babiarz describes a method for using prioritization to control the flow of information over a network, however, Babiarz fails to disclose “threshold priorities calculated in part based on whether media data requested in the send requests comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data” as recited in independent claim 35. Nothing in Babiarz discloses these features as recited in claim 35.

Further, the Office admits that Babiarz fails to disclose ranking the send requests according to respective priorities for each time slot, as recited by independent claim 35. As discussed above, Klotsche fails to remedy the deficiencies in Babiarz with respect to the features of this claim. Klotsche fails to disclose “threshold priorities calculated in part based on whether media data requested in the send requests comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data,” as recited in independent claim 35.

Thus, Babiarz, and Klotsche, taken alone or in combination, fail to disclose, teach, or suggest at least these features of independent claim 35. Independent claim 35 is allowable for at least these reasons.

Dependent Claim 26 depends from independent claim 20. **Dependent Claims 29-32** depend from independent claim 28. **Dependent Claims 36-38 and 40** depend from independent claim 35. Each of these dependent claims includes all of the features of the independent base claims. Dependent claims 26, 29-32, 36-38, and 40 are allowable by virtue of this dependency as well as for additional features that each recites.

Claims 33, 34, and 39 stand rejected under 35 U.S.C. § 103(a) as being obvious over Babiarz, in view of Klotsche and in further view of Gonzalez. Applicant respectfully traverses the rejection.

Dependent claims 33 and 34 depend from independent claim 28, and **Dependent claim 39** depends from independent claim 35. Each of these dependent claims includes all of the features of the independent base claims. Dependent claims 33, 34 and 39 are allowable by virtue of this dependency as well as for additional features that each recites. As discussed above, neither Klotsche nor Gonzalez remedy the deficiencies in Babiarz with respect to the independent claims.

Babiarz, Klotsche and Gonzalez, taken alone or in combination, fail to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data” as presently recited in independent claim 28, or “threshold priorities calculated in part based on whether media data requested in the send requests comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data,” as recited in independent claim 35. Therefore, Babiarz, Klotsche and Gonzalez, taken alone or in combination, fail to disclose, teach, or suggest the features of independent claims 28 and 35 respectively.

Further, the Office admits that the combination of Babiarz and Klotsche does not disclose that if the send request is not selected, determining if the priority of the send request is more important than at least one other threshold priority from another sender and, if so, transmitting a send request to the sender, as recited in dependent claims 33, 34, and 39. The Office states that Gonzalez teaches these features.

However, as discussed above, Babiarz, Klotsche and Gonzalez, taken alone or in combination, fail to disclose, teach, or suggest “wherein the threshold priority is calculated from a variety of factors including whether media data requested in the send request comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data” as recited by

incorporation in dependent claims 33 and 34, or “threshold priorities calculated in part based on whether media data requested in the send requests comprises **deadline** media data versus relatively **sooner early** media data or relatively **later early** media data,” as recited by incorporation in dependent claim 39. Therefore, Babiarcz, Klotsche and Gonzalez, taken alone or in combination, fail to disclose, teach, or suggest the features of dependent claims 33, 34, and 39.

Dependent claims 33, 34, and 39 are allowable for at least these reasons.

CONCLUSION

For at least the foregoing reasons, claims 1-40 are in condition for allowance. Applicant respectfully requests reconsideration and withdrawal of the rejections and an early notice of allowance.

If any issue remains unresolved that would prevent allowance of this case, Applicant requests that the Examiner contact the undersigned attorney to resolve the issue.

Respectfully submitted,

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